WHAT IS CLAIMED IS:

1. An image display device comprising:

a first substrate having an image display surface;

a second substrate opposed to the first substrate across a gap and having a plurality of electron sources which excite the image display surface;

a grid provided between the first and second substrates and having a plurality of beam passage apertures opposed to the electron sources, individually;

a plurality of spacers which maintain the space between the first substrate and the second substrate; and

a voltage supply unit which applies a voltage to the first substrate and applies a voltage higher than the one for the first substrate to the grid.

2. An image display device according to claim 1, wherein the grid has a first surface opposed to the first substrate and a second surface opposed to the second substrate, and the spacers includes a plurality of columnar first spacers set up on the first surface of the grid and abutting against the first substrate and a plurality of columnar second spacers set up on the second surface of the grid and abutting against the second substrate.

3. An image display device according to claim 2, wherein each of the first spacers is set up on the

first surface of the grid between the beam passage apertures, and each of the second spacers is set up on the second surface of the grid between the beam passage apertures and aligned with the first spacer.

4. An image display device according to claim 2, wherein the first spacers are shorter than the second spacers in height.

5. An image display device according to claim 2, wherein each of the first spacers abuts against the first substrate across a height correcting layer.

6. An image display device according to claim 5, wherein the height correcting layer has a resistance lower than that of the spacers.

7. An image display device according to claim 2, wherein the second spacers have a surface resistance lower than the surface resistance of the first spacers.

8. An image display device according to claim 1, wherein the surface of the grid and the inner surface of each beam passage apertures are subjected to high-resistance surface treatment.

9. An image display device according to claim 1, wherein the voltage applied to the grid is set within 1.5 times as high as the voltage applied to the first substrate.